

**American Chemical Society Division of Chemical Education  
Composite Norms – Analytical Chemistry 2022 (AN22)**

| Score | Percentile |
|-------|------------|
| 50    | 100        |
| 49    | 100        |
| 48    | 100        |
| 47    | 100        |
| 46    | 100        |
| 45    | 99         |
| 44    | 98         |
| 43    | 98         |
| 42    | 97         |
| 41    | 95         |
| 40    | 94         |
| 39    | 92         |
| 38    | 89         |
| 37    | 86         |
| 36    | 83         |
| 35    | 80         |
| 34    | 76         |
| 33    | 72         |
| 32    | 67         |

| Score | Percentile |
|-------|------------|
| 31    | 63         |
| 30    | 58         |
| 29    | 53         |
| 28    | 49         |
| 27    | 44         |
| 26    | 40         |
| 25    | 35         |
| 24    | 31         |
| 23    | 28         |
| 22    | 23         |
| 21    | 18         |
| 20    | 14         |
| 19    | 11         |
| 18    | 8          |
| 17    | 6          |
| 16    | 4          |
| 15    | 3          |
| 14    | 2          |
| 13    | 1          |

| Score | Percentile |
|-------|------------|
| 12    | 0          |
| 11    | 0          |
| 10    | 0          |
| 9     | 0          |
| 8     | 0          |
| 7     | 0          |
| 6     | 0          |
| 5     | 0          |
| 4     | 0          |
| 3     | 0          |
| 2     | 0          |
| 1     | 0          |
| 0     | 0          |

|                   |      |
|-------------------|------|
| Mean              | 28.3 |
| Std. deviation    | 7.4  |
| Median            | 28   |
| KR-21 reliability | 0.79 |
| Std error/meas    | 3.37 |

AN22  
based on the scores of 602 students from 20 institutions

